

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/086246 A2

(51) International Patent Classification⁷: **H01L 35/32**

(21) International Application Number:
PCT/IT2005/000112

(22) International Filing Date: 28 February 2005 (28.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
MI2004 U 000079 2 March 2004 (02.03.2004) IT

(71) Applicant (for all designated States except US): **PEL-TECH S.R.L.** [IT/IT]; Via Mazzini, I-23801 Calolziocorte (Lecco) (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CODECASA, Matteo** [IT/IT]; Via Sannio, 18, I-20137 Milano (MI) (IT). **PASTORINO, Giorgio** [IT/IT]; Via Provinciale, 61, I-23864 Malgrate (IT).

(74) Agent: **PELLEGATTA, Ottorino**; c/o Calvani, Salvi & Veronelli S.r.L., Piazza Duca d'Aosta, 4, I-20124 Milan (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

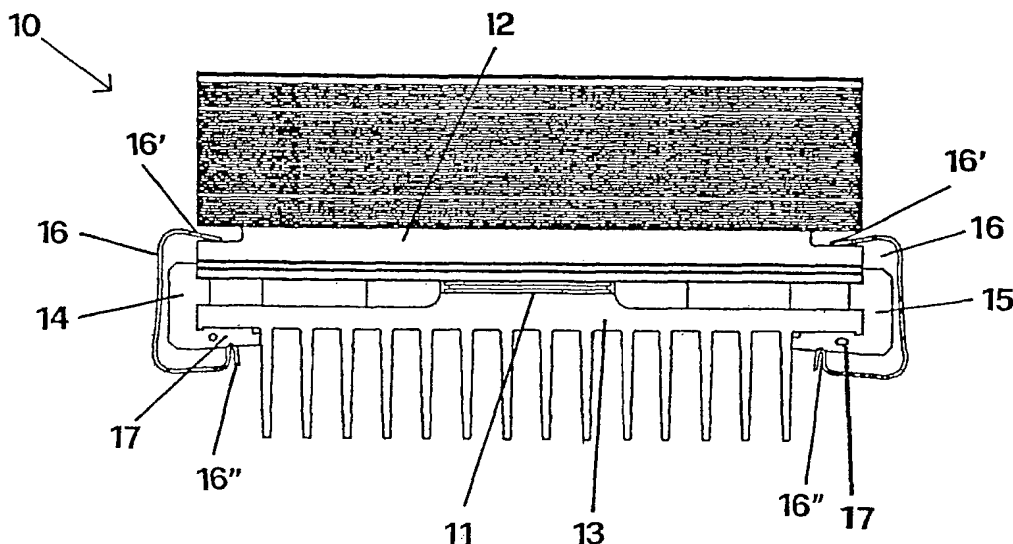
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: IMPROVEMENTS IN OR RELATING TO THERMOELECTRIC HEAT PUMPS



(57) Abstract: The thermoelectric heat pump comprises one or more thermoelectric modules having a hot side connected to a first heat exchanger and a cold side connected to a second heat exchanger, and is characterised in that it comprises a pair of elongated bar-like elements made of an electrically and thermally insulating material which are arranged at two parallel sides of the heat exchangers, at least partly interposed between facing flanges of said heat exchangers, at least one of said elongated bar-like elements including electric conductors for supplying power to the thermoelectric modules, as well as conductors for supplying control signals therefor, and that said heat exchangers contacting the thermoelectric modules are linked one another via a plurality of fasteners, each fastener being formed of a substantially C-shaped metal clip.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.